IN THE CLAIMS

Please amend the claims as follows:

1-63. (Cancelled)

64.   (Currently amended) A gateway ~~(GW)~~ for forwarding transmission information ~~(TI, TI', TI'')~~ between a first terminal node ~~(CN)~~ of a first network ~~(IN)~~ and a second terminal node ~~(RN1-RN4; MN)~~ of an ad hoc network ~~(AHN)~~, <u>wherein the first terminal node is addressable by a global source address and the second terminal node is addressable by an ad hoc destination address, the gateway</u> comprising:

~~a)~~   a transmission/reception unit ~~(TRG)~~ adapted to receive transmission information ~~(TI, TI', TI'')~~ from said first terminal node ~~(CN)~~ and to transmit said transmission information ~~(TI, TI', TI'')~~ to said second terminal node ~~(RN1-RN4; MN)~~; and

~~b)~~   an acknowledgment information detection unit ~~(ACKM)~~ adapted to detect the receipt of acknowledgment information ~~(ACTAN, ACTAN', ACTAN'')~~ from said second terminal node ~~(RN1-RN4; MN)~~ acknowledging that said second terminal station ~~(RN1-RN4; MN)~~ has received said transmission information ~~(TI, TI', TI'')~~; wherein

~~c)~~   said transmission/reception unit ~~(TRG)~~ comprises a first tunnel setup unit ~~(IPTUN)~~ for setting up a first tunnel link ~~(TUN1)~~ between said gateway ~~(GW)~~ and said second terminal node ~~(MN)~~, wherein said transmission/reception unit ~~(TRG)~~ transmits said transmission information ~~(TI, TI', TI'')~~ and receives said acknowledgment information ~~(ACTAN, ACTAN', ACTAN'')~~ to and from said second terminal node ~~(MN)~~ respectively through said first tunnel link ~~(TUN1)~~.

65.   (Currently amended) The gateway according to claim 64, characterized by an accounting unit ~~(ACC')~~ adapted to determine charging information ~~(CH)~~ for the transmission of said transmission information ~~(TI, TI', TI'')~~ to said second terminal node ~~(RN1-RN4; MN)~~ if said acknowledgment information detection unit ~~(ACKM)~~ detects the receipt of acknowledgment information ~~(ACTAN, ACTAN', ACTAN'')~~ for the transmission of said transmission

information ~~(TI, TI', TI'')~~ to said second terminal station ~~(RN1-RN4; MN)~~.

66.   (Currently amended) The gateway according to claim 64, characterized by a transmission information characteristics determining unit ~~(TIM)~~ adapted to determine transmission characteristics ~~(TCH)~~ of the transmission of said transmission information ~~(TI, TI', TI'')~~ to said second terminal node ~~(RN1-RN4; MN)~~.

67.   (Currently amended) The gateway according to claim 64, characterized in that said transmission information characteristics determining unit ~~(TIM)~~ is adapted to determine as said transmission characteristics ~~(TCH)~~ one or more selected from the group consisting of a data amount ~~(DAM)~~, a transmission speed ~~(TRT)~~, a transmission route ~~(MR, AR)~~ along which said transmission information ~~(TI, TI', TI'')~~ has been transmitted to said second terminal node ~~(RN1-RN4; MN)~~, and a delay time of the packet transmission.

68.   (Currently amended) The gateway according to claim 64, characterized in that said second ad hoc network ~~(AHN)~~ is a packet switched network ~~(AHN)~~, said transmission information ~~(TI, TI', TI'')~~ comprises one or more transmission packets ~~(IP1-IP5)~~, and said acknowledgement information ~~(ACTAN, ACTAN', ACTAN'')~~ comprises one or more acknowledgment packets ~~(ACK1-ACK5)~~.

69.   (Currently amended) The gateway according to claim 68, characterized by an acknowledgment request unit ~~(SOL)~~ adapted to transmit to said second terminal node ~~(MN)~~ an acknowledgment request packet ~~(SOL_ACK3)~~ including a predetermined sequence number ~~(SN)~~ of a transmission packet ~~(IP3)~~ which was transmitted but for which no acknowledgement information has as yet been detected by said acknowledgment information detection unit ~~(ACKM)~~, said acknowledgment request message ~~(SOL_ACK3)~~ requesting from said second terminal node ~~(MN)~~ the transmission of an acknowledgment packet ~~(ACK3)~~ acknowledging the receipt of the transmission packet ~~(IP3)~~ having said predetermined sequence number ~~(IP3)~~.

70.   (Currently amended) The gateway according to claim 64, characterized by a route check

unit (RC) adapted to detect whether a transmission route (MR, AR) to said second terminal node (MN) exists.

71.   (Currently amended) A first terminal node of an ad hoc network (AHN) for exchanging transmission information (TI, TI', TI'') with another a second terminal node (CN) of another network (IN) connected to said ad hoc network (AHN) through a gateway (GW), wherein the first terminal node is addressable by an ad hoc destination address and the second terminal node is addressable by a global source address, the first terminal node comprising:

a)   a transmission/reception unit (TRN) adapted to receive transmission information (TI, TI', TI'') from said another terminal node (CN) through said gateway (GW); and

b)   an acknowledgment information transmission unit (ACKSN) adapted to transmit to said gateway (GW) acknowledgment information (ACTAN, ACTAN', ACTAN'') acknowledging that said transmission/reception unit (TRN) has received said transmission information (TI, TI', TI'');
wherein

c)   said transmission/reception unit (TRN) comprise a first tunnel setup unit (TUN1) for setting up a first tunnel link (TUN1) between said second terminal node (MN) and said gateway (GW), wherein said transmission/reception unit (TRG) receives said transmission information (TI, TI', TI'') and transmits said acknowledgment information (ACTAN, ACTAN', ACTAN'') from and to said gateway (GW) respectively through said first tunnel link (TUN1).

72.   (Currently amended) The terminal node according to claim 71, characterized in that said ad hoc network (AHN) is a packet switched network (AHN), said transmission information (TI, TI', TI'') comprises one or more transmission packets (IP1-IP5), and said acknowledgement information (ACTAN, ACTAN', ACTAN'') comprises one or more acknowledgment packets (ACK1-ACK5).

73.   (Currently amended) The terminal node according to claim 71, characterized by a packet retransmission request unit (ARQ) adapted to transmit to said gateway (GW) a retransmission

request packet (SEL_ACK3(2); SEL_ACK4(2)) including a sequence number (2; 2) of a transmission packet (IP2; IP2) which is requested to be retransmitted from said gateway (GW).

74.   (Currently amended) A method for forwarding transmission information (TI, TI', TI'') between a first terminal node (CN) of a first network (IN) of a communication system (SYS) and a second terminal node (RN1-RN4; MN) of an ad hoc network (AHN) of said communication system (SYS), wherein the first terminal node is addressable by a global source address and the second terminal node is addressable by an ad hoc destination address, the method comprising the following steps in a gateway (GW) of said communication system (SYS):

a)   setting up a first tunnel link (TUN1) in the ad hoc network between said gateway (GA) and said second terminal node (MN) and transmitting said transmission information (RI, TI', TI'') and receiving said acknowledgment information (ACTAN, ACTAN', ACTAN'') to and from said second terminal node (MN) respectively through said first tunnel link (TUN1);

b)   receiving (S5c1), in said gateway (GW) of said communication system (SS), transmission information (TI, TI', TI'') from said first terminal node (CN) and transmitting (S5c2), from said gateway (GW) via the first tunnel link, said transmission information (TI, TI', TI'') to said second terminal node (RN1-RN4; MN); and

c)   detecting (S5c5), in said gateway (GW), the receipt of acknowledgment information (ACTAN, ACTAN', ACTAN'') via the first tunnel link from said second terminal node (RN1-RN4; MN) acknowledging that said second terminal station (RN1-RN4; MN) has received said transmission information (TI, TI', TI'').

75.   (Currently amended) A method for forwarding transmission information (TI, TI', TI'') between a first terminal node (CN) of a first network (IN) of a communication system (SYS) and a second terminal node (RN1-RN4; MN) of an ad hoc network (AHN) of said communication system (SYS), wherein the first terminal node is addressable by a global source address and the second terminal node is addressable by an ad hoc destination address, the method comprising the following steps in said second terminal node (MN):

a)   setting up a first tunnel link (TUN1) in the ad hoc network between said gateway

(GA) and said second terminal node (MN) and transmitting said transmission information (RI, TI', TI'') and receiving said acknowledgment information (ACTAN, ACTAN', ACTAN'') to and from said second terminal node (MN) respectively through said first tunnel link (TUN1);

b)   receiving (S5c3), in said second terminal node (MN) via the first tunnel link, transmission information (TI, TI', TI'') from a gateway (GW) of said communication system (SYS); and

c)   transmitting (S5c4), from said second terminal node (MN) via the first tunnel link to said gateway (GW), acknowledgment information (ACTAN, ACTAN', ACTAN'') acknowledging that said second terminal node (MN) has received said transmission information (TI, TI', TI'').

76.   (Currently amended) The method according to claim 74, characterized by determining (S57), in said gateway (GW), charging information (CH) for the transmission of said transmission information (TI, TI', TI'') to said second terminal node (RN1-RN4; MN) if the receipt of acknowledgment information (ACTAN, ACTAN', ACTAN'') for the transmission of said transmission information (TI, TI', TI'') to said second terminal station (RN1-RN4; MN) is detected.

77.   (Currently amended) The method according to claim 74, characterized by determining (S54) transmission characteristics (TCH) of the transmission of said transmission information (TI, TI', TI'') to said second terminal node (RN1-RN4; MN).

78.   (Currently amended) The method according to claim 74, characterized by determining (S54) as said transmission characteristics (TCH) one or more selected from the group consisting of a data amount (DAM), a transmission speed (TRT), a transmission route (RT; MR, AR) along which said transmission information (TI, TI', TI'') has been transmitted to said second terminal node (RN1-RN4; MN), and a delay time of the packet transmission along the transmission route to the second terminal node (MN).

79.   (Currently amended) The method according to claim 74, characterized by transmitting ~~(S114)~~, from said gateway ~~(GW)~~ to said second terminal node ~~(MN)~~, an acknowledgment request packet ~~(SOL_ACK3)~~ including a predetermined sequence number ~~(SN)~~ of a transmission packet ~~(IP3)~~ which was transmitted but for which no acknowledgement information has as yet been detected in said gateway ~~(GW)~~, said acknowledgment request message ~~(SOL_ACK)~~ requesting from said second terminal node ~~(MN)~~ the transmission of an acknowledgment packet ~~(ACK3)~~ acknowledging the receipt of the transmission packet ~~(IP3)~~ having said predetermined sequence number ~~(IP3)~~.

80.   (Currently amended) The method according to claim 74, characterized by setting up a first tunnel link ~~(TUN1)~~ between said gateway ~~(GA)~~ and said second terminal node ~~(MN)~~ and transmitting said transmission information ~~(RI, TI', TI'')~~ and receiving said acknowledgment information ~~(ACTAN, ACTAN', ACTAN'')~~ to and from said second terminal node ~~(MN)~~ respectively through said first tunnel link ~~(TUN1)~~.

81.   (Currently amended) The method according to claim 74, characterized in that said ad hoc network ~~(AHN)~~ is a packet switched network ~~(AHN)~~, said transmission information ~~(TI, TI', TI'')~~ comprises one or more transmission packets ~~(IP1-IP5)~~, and said acknowledgement information ~~(ACTAN, ACTAN', ACTAN'')~~ comprises one or more acknowledgment packets ~~(ACK1-ACK5)~~.

82.   (Currently amended) A computer program product <u>stored on a computer-readable medium</u>, comprising code sections for respectively carrying out the functions of the gateway ~~(GW)~~ in accordance with claim 74.

83.   (Currently amended) A computer program product <u>stored on a computer-readable medium</u>, comprising code sections for respectively carrying out the functions of the terminal node ~~(RN1-RN4; MN)~~ in accordance with claim 75.